

THE CONCEPT OF ILLNESS BEHAVIOR*

DAVID MECHANIC, Ph.D.†

University of Wisconsin

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ONE OF the principal tasks of the medical sciences is to understand and determine the conditions under which particular symptoms or disease entities arise either in individuals or among groups of individuals. Public health physicians have the further problem of effecting the arrival of “ill” persons at medical settings so that treatment can be effectively administered. Whether we concern ourselves with the necessary conditions for building adequate etiological theories or those for bringing treatment to persons most in need of such help, it is necessary that we understand the influence of a variety of norms, values, fears, and expected rewards and punishments on how a symptomatic person behaves.

Such considerations lead us to propose a **concept of illness behaviour**. By this term we refer to the ways in which given symptoms may be differentially perceived, evaluated, and acted (or not acted) upon by different kinds of persons. Whether by reason of earlier experiences with illness, differential training in respect to symptoms, or whatever, some persons will make light of symptoms, shrug them off, and avoid seeking medical care; others will respond to the slightest twinges of pain or discomfort by quickly seeking such medical care as is available. In short, the realm of illness behaviour falls logically and chronologically between two major traditional concerns of medical science: **etiology and therapy**. Variables affecting illness behavior come into play prior to medical scrutiny and treatment, but after etiological processes have been initiated. In this sense, illness behavior even determines whether diagnosis and treatment will begin at all.

We are here dealing with an area important for public health and medical sociology and it becomes a matter of both theoretical and practical concern to discover the sources and consequences of different illness behaviors. And if, in given populations, there are systematic differences in illness behavior, this fact has obvious implications for public health programs [5]§, estimated needs for medical care, medical economics, and our understanding of health and illness in general.

That the behavioral sciences can shed some light on such questions is indicated, for example, by the researches of Koos and Saunders. Koos [7] found that upper class

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†Assistant Professor of Sociology at the University of Wisconsin.

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§Many programs in health education recognize this problem, explicitly, or implicitly. (See, for example, various numbers of Health Education Monographs and SIMMONS [5, 6].)

persons more often reported themselves ill than lower class persons, and also that they were more likely to seek treatment when afflicted. Lower class persons, on the other hand, while having more actual symptoms, reported themselves to be less often ill, and were the least likely of all persons in the community studied to visit a physician. Similarly, SAUNDERS [8], comparing the attitudes and behavior of Spanish and English-speaking populations in the Southwest, found many differences in the way the two populations responded to illness and used medical facilities. Whereas the "Anglos" preferred modern medical science and hospitalization for many illnesses, the Spanish-speaking people were more likely to rely on folk-medicine and family care and support.

The concept of the "social role of the sick person" as developed by SIGERIST [9] and elaborated by PARSONS [10], provides a convenient starting point in approaching illness behavior. According to Parsons' analysis, when a person's illness has been legitimized by medical sanction, or that of intimates and/or persons having influence over him, the person occupies a special role in society. During the time of the illness, he may be relieved of usual demands and obligations and his "sick role" takes priority over other social roles (e.g. occupational, familial etc.). Moreover, the person is expected to seek help in restoring his full energies and to co-operate in the treatment process. Persons may be motivated to adopt the sick role to obtain release from various kinds of responsibilities; but there are also others who fear the dependence of the sick role or who are suspicious of physicians and avoid seeking medical advice even when serious symptoms appear.

Whether a person does or does not assume the sick role when ill is dependent on a variety of group and personal factors. The person's age, sex, and position in his social group as well as the importance of his role for the group must be considered [1]. If a man's failure to appear at work—even for one day—results in hardship for his family, it is likely he will avoid consulting a physician and the possibility of being encouraged to assume the sick role unless his symptoms become so serious as to prevent him from working; if time and money are available and a short departure from usual roles impose no undue hardships, the person is more likely to seek medical advice, get into bed, and release himself from his usual role demands.

Another factor of importance is the person's learned behaviors for dealing with symptoms. These behaviors may be learned for ideological reasons as with the Christian Scientist or for practical reasons as with the members of lower income groups. What symptoms the person recognizes as important or worthy of attention and what he neglects or tends to ignore largely conditions when and for what reasons he might appear for medical diagnosis. This has often been a considerable problem for public health people as the evaluations by patient and physician of what constitutes serious symptoms and what necessitates treatment and attention may, indeed, be discrepant. One of the prime functions of public health programs is to teach populations to accept, and behave in accordance with, the definitions made by the medical profession.

In evaluating how best to bring about successful educational programs, two questions become apparent: (1) What are the factors affecting the appearance or non-appearance of persons for medical diagnosis? and (2) how can these people be reached most effectively by educational and information programs?

The latter problem is outside the scope of this paper, but Professor Volkart and I have explored the former problem to some extent in an investigation of 614 male students at a large University. These subjects were approximately of the same age, and lived and ate their meals in the same university dormitory. Because of school requirements, the academic demands made upon them were also substantially similar. Data were obtained by means of both a questionnaire and investigation of their medical records. Using a series of hypothetical questions concerning whether these students would seek advice from a physician if they had various symptoms, we were able to distinguish students with varied inclinations, to seek medical attention. Our concern then became threefold: (1) what is the relationship between the inclination to seek medical attention and the actual use of medical facilities as measured by the students' health records? (2) what social and personal factors are associated with the expressed inclination to seek medical advice? and (3) what diagnostic categories are most affected by differential inclinations to seek medical advice? As expected, we found that the actual frequency of visits made to a free University medical clinic was highly associated with a high inclination to seek medical help as measured by responses to a set of hypothetical medical conditions. The measure of inclination to seek medical advice, also, was significantly related to the person's religion, his social class position, his dependency on others, and the magnitude of stress he reported. More specifically, we found that while approximately 71 per cent of the Jews in the sample and 70 per cent of the Episcopalians expressed a high inclination to use medical facilities in various hypothetical situations, only 32 per cent of Christian Scientists and 42 per cent of Catholics did so. These differences persisted within social class groups indicating that class influences on religious affiliation could not explain all of the variance. Our findings suggested a theory of learned alternative channels for dealing with life stress situations, including illness. Symptoms presented to the physician by Jews and Episcopalians may be presented to priests, lay practitioners and druggists by members of other groups. The differences observed and the theory suggested are being investigated now with other populations.

These findings suggest the importance of further investigations of cultural and social response to *dis-ease*. ZBOROWSKI's classic study [11] of reactions to pain showed that Jewish, Italian, Irish and "old American" patients responded differently. While Jews and Italians responded emotionally tending to exaggerate their pain experience, Irish and "old Americans", in contrast, were more stoical. Response to pain and response to disease take place within an elaborate cultural context, in which the patient, his family, and the community respond in socially patterned ways. Zborowski reports how Jewish and Italian respondents related that their mother showed over-protective and over-concerned attitudes toward the child's health, participation in sports and the like, and that they were constantly warned of the advisability of avoiding colds, injuries, fights, and other threatening situations. While excessive concern in clinical situations may be regarded as hypochondriasis or even malingering, it is essential for the practicing physician to recognize that these patterns are often acquired in the child's training process and that the patient's prior training affects how and when he presents himself and his symptoms to his physician.

One of the main concerns of our research was the effects of "stress" on illness behavior. We found that persons who reported high "stress" as measured by frequency of loneliness and nervousness, were significantly more likely to use medical facilities

than persons with lesser "stress". While 60 per cent of our high stress respondents visited the health service three or more times during the period studied, only 38 per cent of the low stress persons visited this service frequently. Moreover, we found that stress was associated, also, with the inclination to use medical facilities expressed in various hypothetical situations. While 60 per cent of high stress persons expressed a high inclination to use medical facilities, only 43 per cent of the low stress persons did so. In the group with a high inclination to use medical facilities as measured by hypothetical situations, 73 per cent of persons under high stress made three or more visits during the period observed, while in the same group only 46 per cent of low stress persons were such frequent visitors. In the group with low inclination to use medical facilities, 42 per cent of high stress persons visited three or more times, as compared with only 30 per cent of the low stress persons. Thus, stress was more likely to affect the act of using medical facilities among persons who already had a high inclination to use such facilities.

We suspected that the type of stress experienced by a person might be important in its effect on his illness behavior. This idea was based on the assumption that the physician's role is ideally suited to the needs of persons in interpersonal difficulty. The physician's role includes the technical skills and knowledge to deal with "illnesses"; and because it involves communication, interaction, and nurturance, it also meets the interpersonal needs of such persons. Interaction with a physician is suited, also, for persons in interpersonal difficulty in that it can be initiated with little difficulty, not requiring the complex and subtle cues and responses often necessary in other types of relationships. Also, the primary function of the physician is to aid and restore health, and this serves to insure that the patient will not be rejected openly or humiliated. Nor is he likely to be condemned for his various symptoms and complaints—at least initially. In many ways, then, the doctor-patient relationship can serve as a temporary substitute for other kinds of insufficient or inadequate interpersonal relationships.

In our study, questionnaire data were obtained dealing with students' experiences, worries and difficulties during their freshman year. As expected, it was found that students having more interpersonal difficulties (worries about interpersonal matters, worries about dating, feelings of loneliness, etc.) were more likely to express a high inclination to use medical facilities than were persons with lesser interpersonal difficulties. It was further suggested that interpersonal stresses exerted greater effects on persons' expressed inclinations to use medical facilities than did non-interpersonal stresses of similar importance like worries about money, finding studies interesting, etc. These data support the interpretation that interpersonal stress is a significant factor affecting who will seek medical care and when. Aside from clear emergencies and acute illnesses, which scarcely permit alternatives, the maintenance of a doctor-patient relationship involves an interaction between certain services the physician offers and certain needs of the patient which may go beyond "traditional medicine" in its usual connotation.

In evaluating how various diagnostic categories were related to the inclination to seek medical aid as measured by hypothetical situations, we proposed the following rationale; a given illness may be regarded as having certain dimensions or characteristics, more or less perceptible to the sick person and possible to others in his

social environment. In the context under study, four dimensions seemed of particular importance.

- (1) The frequency with which the illness occurs in a given population, i.e., its commonality;
- (2) The relative familiarity of the symptoms to the average member of the group;
- (3) The relative predictability of the outcome of the illness; and
- (4) The amount of threat and loss that is likely to result from the illness.

The first two dimensions refer to the problem of "illness recognition"; the last two to the problem of "illness danger". When a particular symptomatology is both easily recognizable and relatively devoid of probable danger, it is a routine illness; when a given symptomatology occurs more infrequently in the population, it is more difficult to identify, and when its mystery then casts the shadow of danger, there is likely to be a greater sense of concern.

The common cold, for example, as its name suggests, is both easily recognizable and relatively devoid of danger—at least initially. Hepatitis, on the other hand, is less often encountered by most persons and is more likely (and accurately) to be perceived as potentially dangerous.

The point to this approach to illness is that persons perceive symptoms differently. The definition of a symptom may greatly exaggerate its consequences as well as affect the behavior of the patient involved. We expected, therefore, that persons who expressed a high inclination to use medical facilities on our hypothetical questions would seek help under slight provocation; when their symptoms are common and familiar, or unusual and perplexing, they will probably seek medical diagnosis and treatment immediately. Persons with a low inclination to seek medical advice, on the other hand, are more likely to ignore "routine" illnesses and common aches and pains; only the more unusual or severe illnesses should bring them to medical attention.

In our analysis of diagnostic data, illnesses were classified on a matrix which permitted us to focus on illness "sites", irrespective of etiology, e.g., gastrointestinal, skin; or on a given etiological category, irrespective of site, e.g., viral, traumatic; or the possible combinations of etiologies and sites, e.g., viral respiratory or, bacterial skin. Sixteen such diagnostic categories were used in the analysis of our data. These categories were classified as to whether or not they met the criteria of "routine illness" indicated (commonality, familiarity, predictability, and lack of threat). Our hypothesis concerning the relationship between inclination to seek medical attention and "routine" and "non-routine" illness was, then, tested and confirmed. Persons with a high tendency to seek medical aid were significantly more likely than low tendency persons to report to the health service for diagnoses of illnesses meeting the criteria of "routine illness" for our population. These categories included respiratory, viral, viral respiratory, bacterial, and bacterial respiratory categories. Those illnesses classified as "non-routine" (those less common in the population studied, less familiar, less predictable, and threatening illnesses), did not show such large or statistically significant relationships to the inclination to seek medical care. Included among these categories were allergic conditions, poisonings, unknown skin, etc. [2].

From the public health point of view, the results must be scrutinized with some caution. For a symptom viewed by a layman as not serious, may be of great medical consequence. For example, cancer is often not detected until fairly widespread in the

organism, because the layman has not learned, as yet, to view the early signs of cancer as signs sufficient to merit medical consultation. Persons, of course, also sometimes visit the physician unnecessarily, thus, wasting valuable medical time. Physicians and others working on public health information programs have the difficult task of teaching laymen that some of the symptoms, often defined as minor, are important, indeed, and that early detection might greatly reduce the future consequences of the illness, while, at the same time, discouraging tendencies toward hypochondriasis.

These findings also have important implications from the point of view of medical research. The data demonstrate that there are differential visiting patterns for different categories of illness. Thus, clinic and hospital cases used for the study of some illnesses, especially the more "routine" ones, may represent highly select and biased cases from which generalization may not be possible to the larger group of persons in the general population having that illness. The observation, for example, that persons who are ill (with whatever diagnosis) are also under stress is inadequate for any assertion of causality. Individuals with similar medical conditions who are not under stress may not seek medical advice. For some illnesses, at least, appearance in medical statistics may be as much a result of patterns of illness behavior and situational events as it is of the symptoms experienced.

If precise understanding of medical etiology is to be developed, and if health programs are to operate at maximum effectiveness, it is essential that we have a deeper understanding of the concept of illness behavior. It is necessary that we learn a good deal more about the various attitudes, values, and social definitions applied to symptoms, and how these influence the adoption of patient roles. What is equally important is that this understanding be used constructively and effectively in medical practice; and that the person be regarded as a social being with hopes and fears and varied predispositions which are influenced by the groups within which he lives.

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